**[0314]** Various alternatives and modifications can be devised by those skilled in the art without departing from the disclosure. Accordingly, the present disclosure is intended to embrace all such alternatives, modifications and variances. Additionally, while several embodiments of the present disclosure have been shown in the drawings and/or discussed herein, it is not intended that the disclosure be limited thereto, as it is intended that the disclosure be as broad in scope as the art will allow and that the specification be read likewise. Therefore, the above description should not be construed as limiting, but merely as exemplifications of particular embodiments. And, those skilled in the art will envision other modifications within the scope and spirit of the claims appended hereto. Other elements, steps, methods and techniques that are insubstantially different from those described above and/or in the appended claims are also intended to be within the scope of the disclosure.

**[0315]** The embodiments shown in the drawings are presented only to demonstrate certain examples of the disclosure. And, the drawings described are only illustrative and are non-limiting. In the drawings, for illustrative purposes, the size of some of the elements may be exaggerated and not drawn to a particular scale. Additionally, elements shown within the drawings that have the same numbers may be identical elements or may be similar elements, depending on the context.

**[0316]** Where the term "comprising" is used in the present description and claims, it does not exclude other elements or steps. Where an indefinite or definite article is used when referring to a singular noun, e.g., "a," "an," or "the," this includes a plural of that noun unless something otherwise is specifically stated. Hence, the term "comprising" should not be interpreted as being restricted to the items listed thereafter; it does not exclude other elements or steps, and so the scope of the expression "a device comprising items A and B" should not be limited to devices consisting only of components A and B. This expression signifies that, with respect to the present disclosure, the only relevant components of the device are A and B.

**[0317]** Furthermore, the terms "first," "second," "third," and the like, whether used in the description or in the claims, are provided for distinguishing between similar elements and not necessarily for describing a sequential or chronological order. It is to be understood that the terms so used are interchangeable under appropriate circumstances (unless clearly disclosed otherwise) and that the embodiments of the disclosure described herein are capable of operation in other sequences and/or arrangements than are described or illustrated herein.

What is claimed is:

**1**. A system for electronic patient care, the system comprising:

a network;

a facility gateway configured to provide a web service;

a medical device in operative communication with the network, wherein:

only the medical device is configured to communicate with the facility gateway using the web service,

the medical device initiates communications with the facility gateway using the web service at predetermined intervals of time to request a response payload, the facility gateway configured to be prevented from initiating communications with the medical device;

the facility gateway determines whether the medical device is listed on an access list of medical devices that can access the facility gateway;

in response to the medical device initiated communication by the medical device determined to be on the access list, the facility gateway formats the response payload comprising an availability of a software update, an availability of a queryable data type, and a plurality of current request statuses, wherein each current request status is a request for the medical device to transmit a data type of a plurality of data types to the facility gateway,

the facility gateway communicates the response payload to the medical device in response to the medical device initiated communication, and

the medical device communicates all data types of the plurality of data types where a respective current request status of the current request statutes indicates a request of a respective data type.

**2**. The system according to claim **1**, wherein the network is a TCP/IP-based network.

**3**. The system according to claim **1**, wherein the facility gateway application is a web server of the web service and the medical device is a client of the web service.

**4**. The system according to claim **1**, wherein the facility gateway application is configured to register a topic using a publish-subscribe service.

**5**. The system according to claim **4**, further comprising an integration API configured for execution by the facility gateway, wherein the integration API is configured to subscribe to the topic and communicate an event received by the subscription to the topic to at least one external server.

**6**. The system according to claim **5**, wherein the topic is at least one of a reportable biomed events topic and a reportable clinical events topic.

**7**. The system according to claim **4**, wherein the topic is a reportable biomed event topic and the facility gateway reformats a medical device event received via the web service into a reportable biomed event receivable by a subscriber to the topic via a publish-subscribe engine.

**8**. The system according to claim **7**, wherein the medical device communicates the medical device event via the network using the web service.

**9**. The system according to claim **4**, wherein the topic is a reportable clinical event topic and the facility gateway reformats a medical device event received via the web service into a reportable clinical event receivable by a subscriber to the topic via a publish-subscribe engine.

**10**. The system according to claim **9**, wherein the medical device communicates the medical device event via the network using the web service.

**11**. The system according to claim **4**, wherein the topic corresponds to at least one class of pump events.

**12**. The system according to claim **11**, wherein the at least one class of pump events includes at least one of an infusion event regarding an alarm, alert or notification, an infusion event regarding infusing, an infusion event regarding programming, a device event regarding communication, a device event regarding an access request, a device event regarding configuration updates, a device event regarding logging, and a device event regarding power consumption.

**13**. The system according to claim **1**, further comprising a continuous quality improvement listener configured for execution by the facility gateway, wherein: